



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0545; Project Identifier MCAI-2021-00071-T; Amendment 39-21791; AD 2021-22-18]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A350-941 and -1041 airplanes. This AD was prompted by a report of a broken forward guide arm found during a passenger door emergency opening test. Investigation results indicated that the opening speed of the door was higher than expected, likely caused by a reduced damping due to oil leakage of the passenger door damper emergency opening actuator (DEOA). This AD requires repetitively replacing certain forward and aft guide arms on the passenger door, inspecting the forward and aft guide arm support brackets for damage, modifying certain DEOAs, and repairing damage if necessary, and also provides an optional terminating action for the repetitive replacements, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF

PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0545.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0545; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225; email dan.rodina@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0085, dated March 19, 2021 (EASA AD 2021-0085) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI),

to correct an unsafe condition for all Airbus SAS Model A350-941 and -1041 airplanes.

EASA AD 2021-0085 superseded EASA AD 2021-0018, dated January 15, 2021.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A350-941 and -1041 airplanes. The NPRM published in the *Federal Register* on July 6, 2021 (86 FR 35413). The NPRM was prompted by a report of a broken forward guide arm found during a passenger door emergency opening test. Investigation results indicated that the opening speed of the door was higher than expected, likely caused by a reduced damping due to oil leakage of the passenger door DEOA. The NPRM proposed to require repetitively replacing certain forward and aft guide arms on the passenger door, inspecting the forward and aft guide arm support brackets for damage, modifying certain DEOAs, and repairing damage if necessary, and also proposed to provide an optional terminating action for the repetitive replacements, as specified in EASA AD 2021-0085.

The FAA is issuing this AD to address failure of a passenger door to perform its intended function during an emergency opening, which could result in reduced evacuation capacity from the airplane and injury to occupants. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from one commenter. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Add Exceptions to MCAI Specifications

Delta Air Lines Inc. (DAL) asked that the FAA add a new exception paragraph to the proposed AD to allow the replacement of DEOA part number (P/N) FE396001001 with DEOA P/N FE396001004, FE396001005, or FE396001006 (or later model), in addition to DEOA P/N FE396001003 currently included in the instructions. DAL stated

that the RC (required for compliance) instructions appear to limit operators to install only P/N FE396001003. DAL sent in a request for clarification from Airbus in which Airbus clarified that DEOA P/N FE396001001 can be replaced with DEOA P/N FE396001003, FE396001004, FE396001005, or FE396001006, since P/Ns FE396001003, FE396001004, FE396001005, and FE396001006 are interchangeable.

The FAA agrees with the commenter's request, for the reasons provided. The FAA has added the exception in paragraph (h)(6) of this AD.

DAL also asked that the FAA add another new exception paragraph to the proposed AD, as follows: "For this AD, DEOAs which are not 'new' may be used when completing the instructions in Airbus Service Bulletin A350-52-P049, Rev 00, Option 2, as long as they fit the definition of a 'serviceable part' per EASA AD 2021-0085, and do not have part number [P/N] FE396001001 (i.e. P/N FE396001003, FE396001004, FE396001005, FE396001006 or later)." DAL stated that, the DEOA replacement in Option 2 of Airbus Service Bulletin A350-52-P049, dated January 15, 2021, provides instructions to install a "new" DEOA. However, DAL believes that the word "serviceable" should be used rather than "new" in the instructions. DAL noted that Airbus may have inadvertently limited operators to only "new" actuators when otherwise "used" serviceable DEOAs would be acceptable per the definitions of "serviceable part" in the referenced service information. DAL added that it understands that the supply of these DEOAs is low worldwide, and serviceable parts, as defined by EASA AD 2021-0085, may not necessarily be "new." They may be overhauled, repaired, upgraded, modified, etc. DAL stated that such a DEOA will still be compliant with EASA AD 2021-0085, as long as the DEOA is in the "serviceable" configuration and does not have P/N FE396001001 (i.e., has P/N FE396001003, FE396001004, FE396001005, FE396001006, or later). Because DAL is planning to ship affected (discrepant) P/N FE396001001 DEOAs back to the original equipment manufacturer (OEM) for

modification, and P/N FE396001001 may be modified to become a “serviceable part,” the possibility exists that DAL could receive serviceable parts (DEOAs other than P/N FE396001001) that may not necessarily be “new” according to the associated delivery documents.

The FAA agrees with the commenter’s request, for the reasons provided. DEOAs that are “serviceable” may be used during accomplishment of the instructions in Airbus Service Bulletin A350-52-P049, Option 2, provided the part fits the definition of a “serviceable part” per EASA AD 2021-0085. The FAA has added the exception in paragraph (h)(7) of this AD.

DAL asked that paragraph (h) be revised to add an exception to Airbus Service Bulletin A350-52-P049, which states to use CML 04SBA3 varnish polyurethane to protect the identification plate during modification or replacement of the door actuator. DAL stated that the proposed AD should allow the use of CA8800/B900 in lieu of CML 04SBA3.

The FAA agrees with the commenter’s request. Airbus has granted DAL permission to use the material CA8800/B900 in lieu of the CML 04SBA3 materials. The FAA has added this exception in paragraph (h)(10) of this AD.

Request to Clarify Compliance Time for Replacement

DAL asked that the compliance time in paragraph (2) of EASA AD 2021-0085 be clarified in the proposed AD as an exception. DAL stated that 15 days means 15 days “in-service” on an airplane. DAL stated that EASA AD 2021-0085 contains no provisions for used spare doors on which the 15-day guide arm replacement required by that paragraph may have already been exceeded. DAL noted that an operator could have a spare door (or acquire a spare door) that may have previously had an emergency opening with an affected DEOA, and may not have had the guide arms replaced within 15 days, and if the operator wishes to install the spare door, the replacement requirement

cannot be complied with in 15 days, since 15 days may have already elapsed. DAL concluded that any installation of a spare door that has had an emergency opening with the affected actuator would require requesting an alternative method of compliance (AMOC) for the guide arm replacement time.

The FAA disagrees with the request. The grace period of 15 days is sufficient to accomplish the task and is unrelated to on-aircraft usage. For spare parts subject to this AD for which the grace period has elapsed, the AD actions would be required prior to reinstallation on an airplane. No change to the AD is made in this regard.

Request to Correct Cotter Pin Part Number

DAL asked that the proposed AD be revised to add an exception to correct the cotter pin part number identified as P/N MS24665-155 in Airbus Service Bulletin A350-52-P050, dated December 15, 2020, which is referenced in the EASA AD. DAL stated that the proposed AD should allow the use of cotter pins having the correct P/N MS24665-300.

The FAA agrees with the commenter's request. Airbus issued Operators Information Transmission (OIT) – SBIT 21-0014, dated July 8, 2021, to inform operators that P/N MS24665-155 is an incorrect part number for a cotter pin. Therefore, the FAA has added an exception in paragraph (h)(8) of this AD, which requires the use of cotter pins having P/N MS24665-300 instead of cotter pin P/N MS24665-155.

Request to Relocate Configured Spare Component (CSC) Number Marking

DAL asked that the proposed AD include an exception to correct the location to mark the CSC number. DAL stated that Airbus Service Bulletin A350-52-P049, dated January 15, 2021, specifies instructions to mark the new CSC number on the door label. DAL noted that an exception should require the new CSC number to be marked on the identification plate instead. DAL stated that the terms “door label” and “identification plate” appear to be used interchangeably in the referenced service information. DAL

noted that as written, the instructions specified in Airbus Service Bulletin A350-52-P049 are confusing because there is both an identification plate and a door label on the door in the referenced figures; therefore, the instructions incorrectly state to mark the new CSC number on the door label instead of the identification plate. DAL requested confirmation from Airbus that the instructions were incorrect and was informed that the intent of the referenced service information is to mark the new CSC number on the identification plate and not the door label. Airbus issued Repair Design Approval Form (RDAF) 80876584/008/2021#A, dated February 8, 2021, to provide DOA confirmation of the incorrect instructions. The RDAF confirmed that the door label is not to be altered, and the re-identification is to be done to the identification plate only.

The FAA agrees with the commenter's request, for the reasons provided. The instructions specified in Airbus Service Bulletin A350-52-P049 incorrectly specify marking the new CSC number on the door label. Therefore, the FAA has added an exception in paragraph (h)(8) of this AD, which requires the new CSC number to be marked on the identification plate.

Request for Clarification of Terminology

DAL asked for clarification of the terminology used since the terms "rod" and "guide arms" are used interchangeably in Airbus Service Bulletin A350-52-P050, dated December 15, 2020, but not in the proposed AD. DAL stated that in order to reduce potential confusion as to which part is to be replaced, the proposed AD should include a statement that clearly defines that the terms "rod" and "guide arms" are used interchangeably.

The FAA agrees that "guide arms" and "rods" mean the same thing. The term "guide arms" is used in the preamble of this AD; however, those terms are not specifically cited in the regulatory text. Therefore, the FAA has not changed this AD in this regard.

Request to Allow Parts Return

DAL asked that the proposed AD include an exception to allow the return of affected actuators to the OEM after accomplishing the instructions in Airbus Service Bulletin A350-52-P049, dated January 15, 2021. DAL stated that Option 2 of Airbus Service Bulletin A350-52-P049 provides instructions to replace the affected part (DEOA P/N FE396001001) and discard the DEOA with P/N FE396001001 upon replacement. However, DAL stated it intends to ship the removed DEOA back to the OEM for upgrade per its retrofit agreement instructions, rather than discarding the DEOA. DAL requested that the final rule state that return of affected actuators to the OEM is acceptable when accomplishing the instructions in Airbus Service Bulletin A350-52-P049.

The FAA acknowledges the commenter's request; however, this AD does not include a requirement that affected parts must be returned to the OEM. Returning affected parts is at the operator's discretion. However, the FAA has added an exception in paragraph (h)(11) of this AD to provide clarification that returning affected parts is not required by this AD.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0085 describes procedures for repetitively replacing the forward and aft guide arms following any passenger door emergency opening, modifying the airplane so that there is a maximum of one affected DEOA per door pair (left- and right-

hand sides), inspecting the forward and aft guide arm support brackets for damage, and repair. EASA AD 2021-0085 also describes procedures for the optional replacement of each affected DEOA having P/N FE396001001, which is terminating action for the repetitive replacements. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-22-18 Airbus SAS: Amendment 39-21791; Docket No. FAA-2021-0545; Project Identifier MCAI-2021-00071-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus SAS Model A350-941 and -1041 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors.

(e) Reason

This AD was prompted by a report of a broken forward guide arm found during a passenger door emergency opening test. Investigation results indicated that the opening speed of the door was higher than expected, likely caused by a reduced damping due to oil leakage of the passenger door damper emergency opening actuator (DEOA). The FAA is issuing this AD to address failure of a passenger door to perform its intended function during an emergency opening, which could result in reduced evacuation capacity from the airplane and injury to occupants.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) EASA AD 2021-0085, dated March 19, 2021 (EASA AD 2021-0085).

(h) Exceptions and Clarifications to EASA AD 2021-0085

(1) Where EASA AD 2021-0085 refers to January 29, 2021 (the effective date of EASA AD 2021-0018), this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0085 refers to its effective date, this AD requires using the effective date of this AD.

(3) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0085.

(4) Where paragraphs (4) and (5) of EASA AD 2021-0085 refer to “the limits as defined in the inspection SB [service bulletin],” for this AD use “the limits as defined in ASR [aircraft structural repair] A350-A-51-73-11-01ZZZ-667Z-A.”

(5) Where paragraphs (1) and (2) of EASA AD 2021-0085 specify to “replace the forward and aft guide arms on that door in accordance with the instructions of the inspection SB,” this AD requires “removing the forward and aft guide arms on that door, in accordance with the instructions of the inspection SB; doing a detailed inspection of the forward and aft guide arm support bracket on that door and all applicable corrective actions as specified in paragraphs (3) through (5) of EASA AD 2021-0085; and installing new forward and aft guide arms on that door, in accordance with the instructions of the inspection SB.”

(6) Where paragraph (6) of EASA AD 2021-0085 specifies to modify the airplane “in accordance with the instructions of the modification SB,” this AD allows the replacement of DEOA P/N FE396001001 with DEOA P/N FE396001004, FE396001005, or FE396001006, in addition to DEOA P/N FE396001003.

(7) Where paragraph (6) of EASA AD 2021-0085 specifies to modify the airplane “in accordance with the instructions of the modification SB”, this AD allows DEOAs that are “serviceable” to be used as replacement parts, provided the part fits the definition of a “serviceable part” as identified in EASA AD 2021-0085.

(8) Where paragraph (4) of EASA AD 2021-0085 specifies to accomplish the applicable corrective actions “in accordance with the instructions of the inspection SB,” this AD requires the use of cotter pins having P/N MS24665-300 instead of cotter pins having P/N MS24665-155.

(9) Where paragraphs (6) and (7) of EASA AD 2021-0085 specify to modify the airplane to ensure that there is a maximum of one affected part per door pair and that replacement of each affected part is terminating action, which involves the use of CML 04SBA3 varnish polyurethane to protect the identification plate, this AD also allows the use of CA8800/B900 varnish polyurethane in lieu of the CML 04SBA3 varnish polyurethane.

(11) Where the service information referenced in EASA AD 2021-0085 specifies discarding discrepant parts, this AD does not require that action.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2021-0085 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests

that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Related Information

For more information about this AD, contact Dan Rodina, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225; email dan.rodina@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0085, dated March 19, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0085, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 21, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2021-25534 Filed: 11/23/2021 8:45 am; Publication Date: 11/24/2021]